

insert therefor --Attorney Docket No: 0179.210US--. On the cover page, line 2, please delete "Client Ref: 0179.210US".

On page 1, line 1, please delete "Attorney Docket No: 02-031910US" and insert therefor --Attorney Docket No: 0179.210US--. On page 1, line 2, please delete "Client Ref: 0179.210US".

IN THE CLAIMS:

Pursuant to the requirements of 37 CFR 1.121, the following claims are to be substituted for the corresponding previously pending claims of the same numbers:

1. (Amended) An isolated or recombinant nucleic acid comprising a polynucleotide sequence that has at least about 98% sequence identity to at least one polynucleotide sequence from the group consisting of SEQ ID NO:1 to SEQ ID NO:18, or a complementary polynucleotide sequence thereof.
 2. (Amended) The nucleic acid of claim 1, wherein said polynucleotide sequence promotes expression of a nucleic acid encoding a polypeptide to which the polynucleotide sequence is operably linked at a level that is about equal to or greater than the level of expression of the polypeptide-encoding nucleic acid when the polypeptide-encoding nucleic acid is operably linked to a human CMV promoter polynucleotide sequence.
 3. (Amended) The nucleic acid of claim 2, wherein the human CMV promoter polynucleotide sequence is a Towne or AD169 human CMV promoter polynucleotide sequence.
 4. (Amended) The nucleic acid of claim 1, wherein the nucleic acid comprises a polynucleotide sequence selected from the group consisting of SEQ ID NO:1 to SEQ ID NO:18 or a complementary polynucleotide sequence thereof.
- Claims 5 and 6 have been cancelled without prejudice to subsequent renewal.
7. (Amended) The nucleic acid of claim 1, comprising a polynucleotide sequence that has at least about 99% sequence identity to at least one polynucleotide sequence from the group consisting of SEQ ID NO:1 to SEQ ID NO:18 or a complementary polynucleotide sequence thereof.
 8. (Amended) The nucleic acid of claim 1, comprising a polynucleotide sequence that has at least about 99% sequence identity to at least one polynucleotide sequence from the group consisting of SEQ ID NO:1 to SEQ ID NO:18, or a complementary polynucleotide

H2
cancel

sequence thereof, wherein said polynucleotide sequence promotes expression of the polypeptide-encoding nucleic acid at a level that is about equal to or greater than the level of expression of the polypeptide-encoding nucleic acid when the polypeptide-encoding nucleic acid is operably linked to a human CMV promoter polynucleotide sequence.

Claim 9 has been cancelled without prejudice to subsequent renewal.

10. (Amended) An isolated or recombinant nucleic acid comprising a subsequence of at least one polynucleotide sequence selected from the group consisting of SEQ ID NO:1 to SEQ ID NO:18, said subsequence comprising nucleic acid residues at positions corresponding to position 1 to about position 909 of the consensus sequence shown in Figure 8, or a complementary polynucleotide sequence thereof.

11. (Amended) The nucleic acid of claim 10, wherein the subsequence promotes the expression of a nucleic acid encoding a polypeptide to which the subsequence is operably linked.

12. (Amended) An isolated or recombinant nucleic acid comprising a polynucleotide sequence that hybridizes under highly stringent conditions over substantially the entire length of a the polynucleotide sequence of claim 1.

SUB B15
H

14. (Amended) The nucleic acid of claim 1, comprising a polynucleotide sequence that promotes the expression of the polypeptide-encoding nucleic acid at a level that differs from the expression level of the polypeptide-encoding nucleic acid when the polypeptide-encoding nucleic acid is operably linked to a nucleic acid sequence corresponding to a human CMV promoter polynucleotide sequence.

15. (Amended) The nucleic acid of claim 14, wherein the polypeptide-encoding nucleic acid encodes luciferase, and the expression level is determined in an *in vitro* luciferase assay.

16. (Amended) The nucleic acid of claim 14, wherein the polypeptide-encoding nucleic acid encodes β -galactosidase, the polypeptide-encoding nucleic acid is expressed *in vivo*, and the expression level is determined by measuring the serum titer of anti- β -galactosidase antibodies.

SUB B15

17. (Amended) The nucleic acid of claim 14, wherein the polynucleotide sequence promotes the expression of the polypeptide-encoding nucleic acid at a level that is higher than the highest expression level of the polypeptide-encoding nucleic acid when the polypeptide-encoding nucleic acid is operably linked to a human CMV promoter polynucleotide sequence.

18. (Amended) The nucleic acid of claim 17, wherein the polynucleotide sequence promotes the expression of the polypeptide-encoding nucleic acid at a level that is 2-fold

SUB B15
Cont

higher than the highest expression level of the polypeptide-encoding nucleic acid when the polypeptide-encoding nucleic acid is operably linked to a human CMV promoter polynucleotide sequence.

19. (Amended) The nucleic acid of claim 14, wherein the polynucleotide sequence promotes the expression of the polypeptide-encoding nucleic acid at a level that is lower than the lowest expression level of the polypeptide-encoding nucleic acid when the polypeptide-encoding nucleic acid is operably linked to a human CMV promoter polynucleotide sequence.

20. (Amended) The nucleic acid of claim 19, wherein the polynucleotide sequence promotes the expression of the polypeptide-encoding nucleic acid at a level that is 2-fold lower than the lowest expression level of the polypeptide-encoding nucleic acid when the polypeptide-encoding nucleic acid is operably linked to a human CMV promoter polynucleotide sequence.

21. (Amended) The nucleic acid of claim 1, wherein the nucleic acid comprises a deletion of one or more nucleotide residues in a region corresponding to about nucleotide residue positions 830-835 or 841-844 of the consensus sequence shown in Figure 8.

22. (Amended) The nucleic acid of claim 21, wherein the nucleic acid comprises a deletion of nucleotide residues at positions corresponding to about nucleotide residue positions 830-835 or 841-844 of the consensus sequence.

SUB B15

23. (Amended) The nucleic acid of claim 22, wherein the nucleic acid comprises a deletion of the nucleotide residues at positions corresponding to about nucleotide residue positions 830-835 and 841-844 of the consensus sequence.

24. (Amended) The nucleic acid of claim 1, wherein the nucleic acid comprises nucleotide residues of a Rhesus monkey CMV promoter polynucleotide sequence at positions corresponding to about nucleotide residue positions 817-863 of the consensus sequence shown in Figure 8.

SUB B15

26. (Amended) The nucleic acid of claim 1, wherein the nucleic acid comprises an insertion of a nucleotide residue, as compared to the human Towne CMV promoter sequence, after the nucleotide residue corresponding to that positioned at position 853 of the consensus sequence shown in Figure 8.

27. (Amended) The nucleic acid of claim 1, wherein the nucleic acid comprises a deletion of one or more nucleotide residues in a region corresponding to about nucleic acid residue positions 684-735 of the consensus sequence shown in Figure 8.

28. (Amended) The nucleic acid of claim 27, wherein the nucleic acid comprises a deletion of nucleotide residues corresponding to about nucleotide residue positions 684-735 of the consensus sequence.

30. (Amended) The nucleic acid of claim 1, wherein the nucleic acid does not comprise nucleic acid residues beyond about the nucleotide residue position corresponding to position 909 of the consensus sequence, numbered according to the consensus sequence shown in Figure 8.

31. (Amended) The nucleic acid of claim 1, wherein the nucleic acid comprises a polynucleotide sequence comprising nucleic acid residues at positions corresponding to about position 1 to about position 930 of the consensus sequence shown in Figure 8.

32. (Amended) The nucleic acid of claim 31, wherein the nucleic acid does not comprise nucleic acid residues beyond about the nucleotide residue at the position corresponding to position 930 of the consensus sequence shown in Figure 8.

33. (Amended) The nucleic acid of claim 1, wherein the nucleic acid comprises a polynucleotide sequence comprising nucleic acid residues at nucleic acid residue positions corresponding to positions 1 to 932 of the consensus sequence shown in Figure 8.

34. (Amended) The nucleic acid of claim 33, wherein the nucleic acid does not comprise nucleotide residues beyond the nucleotide residue corresponding to position 932 of the consensus sequence shown in Figure 8.

35. (Amended) The nucleic acid of claim 1, wherein the nucleic acid comprises a deletion of one or more nucleotide residues in a region corresponding to about nucleotide residue positions 319-512 of the consensus sequence shown in Figure 8.

36. (Amended) The nucleic acid of claim 35, wherein the nucleic acid comprises a deletion of nucleotide residues corresponding to about nucleotide residue positions 319-512 of the consensus sequence.

44. (Amended) The nucleic acid of claim 1, 10 or 12, wherein the polynucleotide sequence is operably linked to a nucleic acid encoding a polypeptide to form an expression cassette.

45. (Amended) The nucleic acid of claim 44, wherein the polypeptide-encoding nucleic acid encodes a viral polypeptide.

SUB B15) 46. (Amended) The nucleic acid of claim 44, wherein the polypeptide-encoding nucleic acid encodes a polypeptide selected from the group consisting of an immunogen, an immunomodulatory molecule, an antigen, an adjuvant, an allergen, an antibody, a bacterial toxin, a cytokine, a cytokine receptor, and a co-stimulatory molecule.

47. (Amended) The nucleic acid of claim 46, wherein the polypeptide-encoding nucleic acid encodes an antigen selected from the group consisting of a cancer antigen, a hepatitis B surface antigen, a hepatitis A antigen, and a hepatitis C antigen.

48. (Amended) The nucleic acid of claim 46, wherein the polypeptide-encoding nucleic acid encodes a co-stimulatory polypeptide that binds to a CD28 or CTLA-4 receptor.

49. (Amended) A composition produced by the cleaving of one or more nucleic acids of claim 1, 10, or 12, wherein the cleaving comprises mechanical, chemical, or enzymatic cleavage.

51. (Amended) A composition produced by a process comprising incubating one or more nucleic acids of claim 1, 10, or 12 in the presence of deoxyribonucleotide triphosphates and a nucleic acid polymerase.

53. (Amended) A method of producing a modified or recombinant nucleic acid comprising mutating or recombining a nucleic acid of claim 1, 10, or 12.

55. (Amended) The method of claim 54, wherein the one or more additional nucleic acids promote the expression of a nucleic acid encoding a polypeptide.

58. (Amended) The method of claim 54, wherein the recursive recombination produces at least one library of recombinant nucleic acids, which library comprises at least one recombinant nucleic acid that promotes the expression of a nucleic acid encoding a polypeptide.

59. (Amended) The method of claim 53, further comprising assaying the modified or recombinant nucleic acid produced by the method for the ability to promote the expression of a nucleic acid encoding a polypeptide.

61. (Amended) A nucleic acid library comprising two or more nucleic acids of claim 1, 10, or 12.

SUB B15) 62. (Amended) A vector comprising at least one nucleic acid of claim 1, 10, 12 or 44.

65. (Amended) A cell comprising the nucleic acid of claim 1, 10, or 12 or the vector of claim 62.

67. (Amended) A population of cells comprising the library of claim 60 or 61.

68. (Amended) A composition comprising the nucleic acid of claim 1, 10, or 12 or the vector of claim 62 and a carrier.

70. (Amended) The composition of claim 68, wherein the nucleic acid or vector is present in the composition in an amount sufficient to introduce the nucleic acid or vector into cells of a subject, when the composition is administered to the subject.

71. (Amended) A composition comprising the nucleic acid of claim 1, 10, or 12 or the vector of claim 62 in an amount sufficient to introduce the nucleic acid or vector into cells of a subject, when the composition is administered to the subject.

72. (Amended) The composition of claim 70 or 71, wherein the amount is sufficient to introduce the nucleic acid or vector into cells of a subject, when the composition is administered to the subject by a route selected from the group consisting of topical administration, injection, implantation, oral administration, buccal, vaginal administration, rectal administration, and inhalation.

73. (Previously Amended Once and Herein Amended) The composition of claim 70 or 71, wherein the composition is administered to the subject by a route selected from the group consisting of intradermal, subdermal, subcutaneous, intramuscular, intravenous, intraperitoneal, and intrathecal.

74. (Amended) A method of producing a polypeptide, the method comprising:
(a) providing a population of cells comprising a nucleic acid of claim 1, 10, or 12 operably linked to a nucleic acid encoding a polypeptide; and
(b) expressing the polypeptide in at least the subset of the population of cells or progeny thereof.

75. (Amended) The method of claim 74, wherein the population of cells is provided by introducing the nucleic acid operably linked to the polypeptide-encoding nucleic acid into the population of cells.

91. (Amended) A nucleic acid of claim 1, 10, or 12 for use in producing an immunogenic effect, a prophylactic effect, or a therapeutic effect in a subject.

93. (Amended) A kit comprising a nucleic acid of claim 1, 10, 12, or 44.

12/14
SUB 1515
600
94. (Amended) A kit comprising a vector of claim 62 or 63.

96. (Amended) A database comprising one or more character strings corresponding to a unique subsequence of a polynucleotide sequence selected from SEQ ID NO:1 to SEQ ID NO:18 or a unique subsequence of a complementary polynucleotide sequence thereof.

97. (Amended) The database of claim 95 or 96, wherein the one or more character strings is recorded in a computer-readable medium.

Claims 99 and 100 have been cancelled without prejudice to subsequent renewal.

101. (Amended) The method of claim 98, comprising performing one or more operations selected from among: a local sequence comparison, a sequence alignment, a sequence identity or similarity search, a sequence identity or similarity determination, a nucleic acid motif determination, a hypothetical translation, a determination of a restriction map, a sequence recombination, or a BLAST determination.

Please add new claims 104-107 as follows:

104. (New) The nucleic acid of claim 1, wherein the polynucleotide sequence promotes expression of the polypeptide-encoding nucleic acid.

105. (New) The nucleic acid of claim 10, wherein the subsequence promotes expression of a nucleic acid encoding a polypeptide at a level about equal to or greater than the level of expression of the polypeptide-encoding nucleic acid when the polypeptide-encoding nucleic acid is operably linked to a human CMV promoter polynucleotide sequence.

106. (New) An isolated or recombinant nucleic acid comprising a polynucleotide sequence that has at least about 98% sequence identity to a nucleotide sequence as given in any of SEQ ID NOS:1-18 but lacks the nucleotide residues corresponding to the first exon, or a complementary polynucleotide sequence thereof.

107. (New) The nucleic acid of claim 1, wherein the polynucleotide sequence or complementary polynucleotide sequence thereof promotes expression of the polynucleotide-encoding nucleic acid sufficient to induce an immune response.

These amendments are made without prejudice and are not to be construed as abandonment of the previously claimed subject matter or agreement with the Examiner's position. In accordance with the requirements of 37 C.F.R. § 1.121, a marked up version of the claims showing the changes made to the claims is attached as Appendix A. For the Examiner's convenience, a